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(54) Title: DETECTION, IDENTIFICATION AND DIFFERENTIATION OF EUBACTERIAL TAXA USING A HYBRIDIZA-TION ASSAY

(57) Abstract: The present invention relates to a method for the specific detection and/or identification of Staphylococcus species, in particular Staphylococcus aureus, using new nucleic acid sequences derived from the ITS (Internal Transcribed Spacer) region. The present invention relates also to said new nucleic acid sequences derived from the ITS region, between the 16S and 23S ribosomal ribonucleic acid (rRNA) or rRNA genes, to be used for the specific detection and/or identification of Staphylococcus species, in particular of S. aureus, in a biological sample. It relates also to nucleic acid primers to be used for the amplification of said spacer region of Staphylococcus species in a sample.



# A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Y	US 6 312 903 B1 (VAN HEUVERSWYN HUGO ET AL) 6 November 2001 (2001-11-06)	3,4	
A	* especially, Table 1a, col 55: see SEQ ID No 53 (STAU-ICG 1; 30 nt in length) exhibits a 100% identity in overlap with SEQ ID NO 25 (29 nt) of the present application; claims 5,6; example 9	1,2,5-15	
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<b>A</b>	SEQ #4977 (91% and 100% overlap in 58 nt); #5031 (94% and 100% overlap in 54 nt) with respectively SEQ ID NOs 1 and 2 of the application.	1,2,5-15	
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X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
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Date of the actual completion of the international search  7 June 2004	Date of mailing of the international search report  16/06/2004
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer Osporne, H

### INTERNATIONAL SEARCH REPORT

PCT/EP 03/13907

		PCT/EP 03/13907						
C.(Continue	C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT							
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.					
X A	US 5 849 488 A (ALATOSSAVA JOUKO TAPANI ET AL) 15 December 1998 (1998-12-15) 86% and 94% overlap in 142 nt of 285 nt of SEQ ID NO 11 with respectively SEQ ID NOs		3,4 1,2,5-15					
•	1 and 2 of the present application; SEQ ID NO 35 (19 nt) exhibits an 100% identity in overlap with SEQ ID NO 52 (20nt) of the present application							
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Information on patent family members

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